

## EAST Search History

| Ref # | Hits | Search Query   | DBs  | Default Operator | Plurals | Time Stamp       |
|-------|------|--|--|------------------|---------|------------------|
| L1    | 49   | (@ad   @pt1d   @frpd   @read   @rlad   @ptad) < "20030807" and (455/126,102,108-113;375/297,278,296,285;330/149;332/3,162.ccls.) and phase with (amplitude or envelope) same tim\$3 adj1 (adjust\$5 or align\$6 or match\$4)             | US-PGPUB;<br>USPAT;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR               | ON      | 2007/05/08 10:01 |
| L2    | 52   | (@ad   @pt1d   @frpd   @read   @rlad   @ptad) < "20030807" and (455/126,127.1-127.5,102,108-113;375/297,278,296,285;330/149;332/3,162.ccls.) and phase with (amplitude or envelope) same tim\$3 adj1 (adjust\$5 or align\$6 or match\$4) | US-PGPUB;<br>USPAT;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR               | ON      | 2007/05/08 15:06 |
| L3    | 173  | (@ad   @pt1d   @frpd   @read   @rlad   @ptad) < "20030807" and (455/126,102,108-113;375/297,278,296,285;330/149;332/3,162.ccls.) and phase with (amplitude or envelope) and tim\$3 adj1 (adjust\$5 or align\$6 or match\$4)              | US-PGPUB;<br>USPAT;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR               | ON      | 2007/05/08 13:20 |
| L4    | 124  | I3 not I1  | US-PGPUB;<br>USPAT;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR               | ON      | 2007/05/08 10:07 |
| L10   | 13   | (@ad   @pt1d   @frpd   @read   @rlad   @ptad) < "20030807" and (455/126,102,108-113;375/297,278,296,285;330/149;332/3,162.ccls.) and mixer with polar  | US-PGPUB;<br>USPAT;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR               | ON      | 2007/05/08 14:06 |
| L11   | 0    | (@ad   @pt1d   @frpd   @read   @rlad   @ptad) < "20030807" and (455/126,102,108-113;375/297,278,296,285;330/149;332/3,162.ccls.) and mixer near9 amplitude adj2 modulat\$4 and polar adj2 modulat\$4                                     | US-PGPUB;<br>USPAT;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR               | ON      | 2007/05/08 14:10 |
| L12   | 3    | (@ad   @pt1d   @frpd   @read   @rlad   @ptad) < "20030807" and (455/126,102,108-113;375/297,278,296,285;330/149;332/3,162.ccls.) and mixer near9 amplitude adj2 modulat\$4 and polar   | US-PGPUB;<br>USPAT;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR               | ON      | 2007/05/08 14:18 |

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|     |       |   |  |    |    |                  |
|-----|-------|---|--|----|----|------------------|
| L13 | 5     | (@ad   @pt1d   @frpd   @read   @rlad   @ptad) < "20030807" and ("455".clas. or "375".clas.) and mixer near3 amplitude adj2 modulats4 and polar              | US-PGPUB;<br>USPAT;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2007/05/08 14:19 |
| L14 | 3     | l2 not l1   | US-PGPUB;<br>USPAT;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2007/05/08 15:06 |
| S1  | 4     | (masaharu near udagawa and mamoru near arayashiki).in.  | US-PGPUB;<br>USPAT;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2007/05/04 10:47 |
| S2  | 2     | "6377784".pn.   | US-PGPUB;<br>USPAT;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2007/05/04 10:48 |
| S3  | 2     | "6366177".pn.   | US-PGPUB;<br>USPAT;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2007/05/04 10:51 |
| S4  | 25476 | (@ad   @pt1d   @frpd   @read   @rlad   @ptad) < "20030807" and (polar or edge or enhanc\$3 adj2 data adj2 (global or gsm)) and phase with amplitude         | US-PGPUB;<br>USPAT;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2007/05/04 10:54 |
| S5  | 4762  | (@ad   @pt1d   @frpd   @read   @rlad   @ptad) < "20030807" and (polar or enhanc\$3 adj2 data adj2 (global or gsm)) and phase with amplitude                 | US-PGPUB;<br>USPAT;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2007/05/04 10:54 |
| S6  | 422   | (@ad   @pt1d   @frpd   @read   @rlad   @ptad) < "20030807" and (polar near2 modulats4 or enhanc\$3 adj2 data adj2 (global or gsm)) and phase with amplitude | US-PGPUB;<br>USPAT;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2007/05/04 12:38 |

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|     |     |  |  |    |    |                  |
|-----|-----|--|--|----|----|------------------|
| S8  | 208 | S6 and delay\$3  | US-PGPUB;<br>USPAT;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2007/05/04 11:37 |
| S9  | 133 | (@ad   @pt1d   @frpd   @read   @rlad   @ptad) < "20030807" and "455".clas. and (polar near2 modulat\$4 or edge or enhanc\$3 adj2 data adj2 (global or gsm)) and phase with (amplitude or envelope) with (mis\$match\$4 or delay\$4)  | US-PGPUB;<br>USPAT;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2007/05/04 13:27 |
| S10 | 0   | (@ad   @pt1d   @frpd   @read   @rlad   @ptad) < "20030807" and "455".clas. and (polar near2 modulat\$4 or edge or enhanc\$3 adj2 data adj2 (global or gsm)) and phase with (amplitude or envelope) with (mis\$match\$4 or delay\$4 or match3) not S9                           | US-PGPUB;<br>USPAT;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2007/05/04 13:14 |
| S14 | 3   | (@ad   @pt1d   @frpd   @read   @rlad   @ptad) < "20030807" and (polar near2 modulat\$4 or enhanc\$3 adj2 data adj2 (global or gsm)) and phase with (amplitude or envelope) with (mis\$match\$4 or delay\$4 or misalign\$5 or align\$5) not S8 not S9                           | US-PGPUB;<br>USPAT;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2007/05/04 14:13 |
| S15 | 6   | (@ad   @pt1d   @frpd   @read   @rlad   @ptad) < "20030807" and "455".clas. and (polar near2 modulat\$4 or edge or enhanc\$3 adj2 data adj2 (global or gsm)) and phase with (amplitude or envelope) with (mis\$match\$4 or delay\$4 or misalign\$5 or align\$5) not S8 not S9   | US-PGPUB;<br>USPAT;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2007/05/04 13:45 |
| S16 | 6   | (@ad   @pt1d   @frpd   @read   @rlad   @ptad) < "20030807" and "455".clas. and (polar near2 modulat\$4 or edge or enhanc\$3 adj2 data adj2 (global or gsm)) and phase with (amplitude or envelope) with (mis\$match\$4 or delay\$4 or mis\$align\$5 or align\$5) not S8 not S9 | US-PGPUB;<br>USPAT;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2007/05/04 13:45 |

## EAST Search History

|     |      |  |  |    |    |                  |
|-----|------|--|--|----|----|------------------|
| S17 | 3    | (@ad   @pt1d   @frpd   @read   @rlad   @ptad) < "20030807" and (polar near2 modulat\$4 or enhanc\$3 adj2 data adj2 (global or gsm)) and phase with (amplitude or envelope) with (mis\$match\$4 or delay\$4 or mis\$align\$5 or align\$5) not S8 not S9 | US-PGPUB;<br>USPAT;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2007/05/04 14:14 |
| S18 | 7558 | (@ad   @pt1d   @frpd   @read   @rlad   @ptad) < "20030807" and phase with (amplitude or envelope) with (mis\$match\$4 or delay\$4 or mis\$align\$5 or align\$5) not S8 not S9  | US-PGPUB;<br>USPAT;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2007/05/04 14:26 |
| S19 | 601  | S18 and "455".clas.  | US-PGPUB;<br>USPAT;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2007/05/04 14:15 |
| S20 | 2    | "20020058486".pn.  | US-PGPUB;<br>USPAT;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2007/05/04 14:16 |
| S21 | 2    | 09/977193  | US-PGPUB;<br>USPAT;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2007/05/04 14:16 |
| S22 | 16   | ("20020131523"   "5148448"   "5598436"   "5644268"   "5672974"   "5748678"   "5903611"   "5909471"   "6014570"   "6081698"   "6091941"   "6246286"   "6288610"   "6614854"   "6647073"   "6771708").PN.  | US-PGPUB;<br>USPAT;<br>USOCR                                     | OR | ON | 2007/05/04 14:16 |
| S23 | 0    | ("7072420").URPN.  | USPAT  | OR | ON | 2007/05/04 14:25 |

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|     |      |  |  |    |    |                  |
|-----|------|--|--|----|----|------------------|
| S24 | 927  | (@ad   @pt1d   @frpd   @read   @rlad   @ptad) < "20030807" and ("455".clas. or "375".clas.) and (edge or enhanced adj2 data adj2 (gsm or global) or polar near3 modulat\$4) and phase with (amplitude or envelope) with (mis\$match\$4 or delay\$4 or mis\$align\$5 or align\$5 or tim\$4) not S8 not S9 | US-PGPUB;<br>USPAT;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2007/05/04 15:50 |
| S25 | 23   | (@ad   @pt1d   @frpd   @read   @rlad   @ptad) < "20030807" and ("455".clas. or "375".clas.) and (enhanced adj2 data adj2 (gsm or global) or polar near3 modulat\$4) and phase with (amplitude or envelope) with (mis\$match\$4 or delay\$4 or mis\$align\$5 or align\$5 or tim\$4) not S8 not S9         | US-PGPUB;<br>USPAT;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2007/05/04 14:29 |
| S26 | 1036 | (@ad   @pt1d   @frpd   @read   @rlad   @ptad) < "20030807" and ("455".clas. or "375".clas.) and phase with (amplitude or envelope) with (mis\$match\$4 or mis\$align\$5 or align\$5 or match\$4 or tim\$4 near3 error)   | US-PGPUB;<br>USPAT;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2007/05/04 17:06 |
| S28 | 426  | S26 and phase near3 modulat\$4 and (envelope or amplitude) near3 modulat\$4  | US-PGPUB;<br>USPAT;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2007/05/04 16:06 |
| S29 | 269  | S26 and phase near3 modulat\$4 and (envelope or amplitude) near3 modulat\$4 and (feed adj back or feed\$back)  | US-PGPUB;<br>USPAT;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2007/05/04 16:06 |
| S30 | 5550 | (@ad   @pt1d   @frpd   @read   @rlad   @ptad) < "20030807" and ("455".clas. or "375".clas.) and phase with (amplitude or envelope) and (feed\$back or feed adj back)   | US-PGPUB;<br>USPAT;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2007/05/04 17:11 |
| S31 | 499  | (@ad   @pt1d   @frpd   @read   @rlad   @ptad) < "20030807" and ("455".clas. or "375".clas.) and phase same (amplitude or envelope) and (feed\$back or feed adj back) and demodulat\$4 near4 time   | US-PGPUB;<br>USPAT;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2007/05/04 17:16 |

## EAST Search History

|     |      |  |  |    |    |                  |
|-----|------|--|--|----|----|------------------|
| S33 | 81   | (@ad   @pt1d   @frpd   @read   @rlad   @ptad) < "20030807" and ("455".clas. or "375".clas.) and phase same (amplitude or envelope) same polar and tim\$4 near2 (adjust\$6 or align\$5)   | US-PGPUB;<br>USPAT;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2007/05/04 18:12 |
| S34 | 2540 | (@ad   @pt1d   @frpd   @read   @rlad   @ptad) < "20030807" and ("455".clas. or "375".clas.) and phase same (amplitude or envelope) and tim\$4 near2 (adjust\$6 or align\$6)  | US-PGPUB;<br>USPAT;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2007/05/04 18:13 |
| S35 | 1844 | (@ad   @pt1d   @frpd   @read   @rlad   @ptad) < "20030807" and ("455".clas. or "375".clas.) and phase same (amplitude or envelope) and tim\$4 near (adjust\$6 or align\$6)   | US-PGPUB;<br>USPAT;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2007/05/04 18:17 |
| S36 | 263  | (@ad   @pt1d   @frpd   @read   @rlad   @ptad) < "20030807" and ("455".clas. or "375".clas.) and phase with (amplitude or envelope) with (align\$6 or mis\$align\$6 or match\$4 or mis\$match\$4) and tim\$4 near2 (adjust\$6 or align\$6)        | US-PGPUB;<br>USPAT;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2007/05/07 12:23 |
| S37 | 225  | (@ad   @pt1d   @frpd   @read   @rlad   @ptad) < "20030807" and (455/126,102,108-113;375/297,278,296,285;330/149;332/3,162.ccls.) and phase with (amplitude or envelope) with (align\$6 or mis\$align\$6 or match\$4 or mis\$match\$4) and tim\$4 | US-PGPUB;<br>USPAT;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2007/05/07 10:55 |
| S38 | 417  | (@ad   @pt1d   @frpd   @read   @rlad   @ptad) < "20030807" and (455/126,102,108-113;375/297,278,296,285;330/149;332/3,162.ccls.) and phase near9 (amplitude or envelope) near9 (tim\$4 or delay\$4) not S37                                      | US-PGPUB;<br>USPAT;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2007/05/07 11:49 |
| S39 | 1    | "200276785"  | US-PGPUB;<br>USPAT;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2007/05/07 11:49 |

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|     |     |   |  |    |    |                  |
|-----|-----|---|--|----|----|------------------|
| S40 | 3   | "2002076785"  | US-PGPUB;<br>USPAT;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2007/05/07 11:50 |
| S43 | 263 | (@ad   @pt1d   @frpd   @read   @rlad   @ptad) < "20030807" and ("455".clas. or "375".clas.) and phase with (amplitude or envelope) with (align\$6 or mis\$align\$6 or match\$4 or mis\$match\$4) and tim\$4 near2 (adjust\$6 or align\$6)   | US-PGPUB;<br>USPAT;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2007/05/07 12:25 |
| S45 | 808 | (@ad   @pt1d   @frpd   @read   @rlad   @ptad) < "20030807" and ("455".clas. or "375".clas.) and phase near9 (amplitude or envelope) near9 (tim\$4 or delay\$4 or align\$6 or mis\$align\$6 or match\$4 or mis\$match\$4) and tim\$4 near2 (correct\$4 or adjust\$6 or align\$6 or match\$4) not S37 not S38 not S43 | US-PGPUB;<br>USPAT;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2007/05/07 12:34 |
| S46 | 100 | (@ad   @pt1d   @frpd   @read   @rlad   @ptad) < "20030807" and ("455".clas. or "375".clas.) and phase with (amplitude or envelope) with tim\$4 near2 (correct\$4 or adjust\$6 or align\$6 or match\$4) not S37 not S38 not S43  | US-PGPUB;<br>USPAT;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2007/05/07 12:49 |
| S47 | 295 | (@ad   @pt1d   @frpd   @read   @rlad   @ptad) < "20030807" and ("455".clas. or "375".clas.) and phase with (amplitude or envelope) with tim\$4 near3 (delay\$3 or correct\$4 or adjust\$6 or align\$6 or match\$4) not S37 not S38 not S43 not S46  | US-PGPUB;<br>USPAT;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2007/05/07 17:24 |
| S48 | 16  | ("20020131523"   "5148448"   "5598436"   "5644268"   "5672974"   "5748678"   "5903611"   "5909471"   "6014570"   "6081698"   "6091941"   "6246286"   "6288610"   "6614854"   "6647073"   "6771708").PN.   | US-PGPUB;<br>USPAT;<br>USOCR                                     | OR | ON | 2007/05/07 13:59 |
| S49 | 0   | ("7072420").URPN.   | USPAT  | OR | ON | 2007/05/07 14:19 |

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|     |      |  |  |    |    |                  |
|-----|------|--|--|----|----|------------------|
| S50 | 225  | (@ad   @pt1d   @frpd   @read   @rlad   @ptad) < "20030807" and (455/126,102,108-113;375/297,278,296,285;330/149;332/3,162. ccls.) and phase with (amplitude or envelope) with (align\$6 or mis\$align\$6 or match\$4 or mis\$match\$4) and tim\$4        | US-PGPUB;<br>USPAT;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2007/05/08 09:36 |
| S51 | 417  | (@ad   @pt1d   @frpd   @read   @rlad   @ptad) < "20030807" and (455/126,102,108-113;375/297,278,296,285;330/149;332/3,162. ccls.) and phase near9 (amplitude or envelope) near9 (tim\$4 or delay\$4) not S50   | US-PGPUB;<br>USPAT;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2007/05/07 17:27 |
| S52 | 263  | (@ad   @pt1d   @frpd   @read   @rlad   @ptad) < "20030807" and ("455".clas. or "375".clas.) and phase with (amplitude or envelope) with (align\$6 or mis\$align\$6 or match\$4 or mis\$match\$4) and tim\$4 near2 (adjust\$6 or align\$6)                | US-PGPUB;<br>USPAT;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2007/05/07 17:27 |
| S53 | 101  | (@ad   @pt1d   @frpd   @read   @rlad   @ptad) < "20030807" and ("455".clas. or "375".clas.) and phase with (amplitude or envelope) with tim\$4 near2 (correct\$4 or adjust\$6 or align\$6 or match\$4) not S50 not S51 not S52                           | US-PGPUB;<br>USPAT;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2007/05/07 17:27 |
| S54 | 295  | (@ad   @pt1d   @frpd   @read   @rlad   @ptad) < "20030807" and ("455".clas. or "375".clas.) and phase with (amplitude or envelope) with tim\$4 near3 (delay\$3 or correct\$4 or adjust\$6 or align\$6 or match\$4) not S50 not S51 not S52 not S53       | US-PGPUB;<br>USPAT;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2007/05/07 17:27 |
| S55 | 3656 | (@ad   @pt1d   @frpd   @read   @rlad   @ptad) < "20030807" and ("455".clas. or "375".clas.) and phase with (amplitude or envelope) and tim\$4 adj2 (delay\$3 or correct\$4 or adjust\$6 or align\$6 or match\$4) not S50 not S51 not S52 not S53 not S54 | US-PGPUB;<br>USPAT;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2007/05/07 17:32 |



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|     |      |   |  |    |    |                  |
|-----|------|---|--|----|----|------------------|
| S56 | 1634 | (@ad   @pt1d   @frpd   @read   @rlad   @ptad) < "20030807" and ("455".clas. or "375".clas.) and phase with (amplitude or envelope) and tim\$4 adj2 (correct\$4 or adjust\$6 or align\$6 or match\$4) not S50 not S51 not S52 not S53 not S54  | US-PGPUB;<br>USPAT;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2007/05/07 17:33 |
| S57 | 90   | (@ad   @pt1d   @frpd   @read   @rlad   @ptad) < "20030807" and ("455".clas. or "375".clas.) and phase with (amplitude or envelope) same tim\$4 adj2 (correct\$4 or adjust\$6 or align\$6 or match\$4) not S50 not S51 not S52 not S53 not S54 | US-PGPUB;<br>USPAT;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2007/05/07 17:33 |